QUALCOMM is prepared to help minimize the complications associated with the implementation of the preference award. QUALCOMM's preference request specified the MTA in South Florida as the area in which it wished to implement its proposal. QUALCOMM recognizes that, the licenses for this MTA having been awarded, pursuing its original service area request is difficult. QUALCOMM is willing to discuss substitution of a presently unlicensed service area of comparable significance. One such area is the Phoenix C block BTA, which is available as a result of a payment default. Whether this area and/or others would be appropriate is a matter that could be the subject of fruitful discussions, subject to any ex parte rule requirements.

In summary, the Commission should grant QUALCOMM's preference application promptly, with the understanding that QUALCOMM would be willing to consider a substitute service area for the one initially requested. Subject to any applicable ex parte requirements, we would be pleased to discuss either the merits of QUALCOMM's preference request or the issues surrounding the implementation of a favorable decision.

Thank you for taking the time to consider this matter.

Sincerely,

Philip L. Verveer

Veronica M. Ahern

cc: William Caton
Jonathan Chambers
Andre LaChance
Luisa L. Lancetti

WILLKIE FARR & GALLAGHER

Washington, DC
New York
London
Paris

May 23, 1997

Blair Levin, Esq.
Office of the Chairman
Federal Communications Commission
Washington, D.C. 20554

Re: Freeman Engineering Associates, Inc. v. FCC, 103 F.3d 169 (1997)

Dear Blair:

Irwin M. Jacobs of QUALCOMM Incorporated sent a letter today to Chairman Hundt concerning the D.C. Circuit's decision in the above-captioned case involving pioneer's preferences in broadband PCS. Our purpose is to share with you the substance of that letter and to express on behalf of QUALCOMM eagerness to work with the Commission to reach a fair and reasonable outcome. Mr. Jacob's letter addresses a determination that the Commission is required to reach as a result of the above-captioned January D.C. Circuit decision. QUALCOMM, Incorporated, the company that is affected, believes that the substantive decision effectively is foreordained by the record. Implementation of the decision effectively is foreordained by the record. Implementation of the decision has certain practical ramifications. QUALCOMM is well aware of them. It is anxious to cooperate with the Commission to assure that the implementation does not result in any inconvenience to consumers or dislocation of established service providers.

The record, reviewed in the attached memorandum, shows that QUALCOMM's pioneering contribution to broadband PCS service passes the test that was applied to two of the three firms that received preferences, but was not applied to QUALCOMM. In light of the significance of QUALCOMM's CDMA technology to broadband PCS, the Court of Appeals' remand to "remedy this inconsistency" can only result in a determination that QUALCOMM is entitled to a preference. A contrary determination would be both grossly unfair and utterly unsustainable in court.

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In summary, the Commission should grant QUALCOMM's preference application promptly, with the understanding that QUALCOMM would be willing to consider a substitute service area for the one initially requested. Subject to any applicable ex parte requirements, we would be pleased to discuss either the merits of QUALCOMM's preference request or the issues surrounding the implementation of a favorable decision.

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Review of the Court of Appeals Decision and its Effect on QUALCOMM's Pioneer's Preference Request

I. The Court of Appeals decision requires that the Commission not use an "adaptation of technology" test to deny QUALCOMM's pioneer's preference request.

On January 7, 1997, the United States Court of Appeals for the D.C. Circuit vacated the Commission's denial of QUALCOMM's request for a pioneer's preference and remanded the case to the Commission for further proceedings.

The Court held that, while it was reasonable for the Commission to interpret its pioneer's preference rules in such a manner that initial development of an innovative technology for possible use in a service other than broadband PCS is disqualifying, it must apply that interpretation consistently to all applicants. The record shows that the Commission only applied this interpretation to QUALCOMM's preference request.

In the Reconsideration Order, the Commission stated, "The purpose of our pioneer's preference rules is to encourage the development of new technologies and services, rather than merely to implement existing technologies in different bands."[1] The Commission then articulated for the first time its interpretation that its, "rules require that an entity must show that its innovative technology was developed specifically for the advancement of a particular service, in conjunction with a particular rulemaking before the Commission addressing this service."[2] This is the language the Court found to be "a newly developed (and questionable) interpretation of its pioneer's preference rules."[3]

Because the record shows that at least two of the three broadband preference recipients adapted existing technology to the PCS band, *the Commission may not use an "adaptation of existing technology" test to deny QUALCOMM's request.*

II. Omnipoint developed its technology specifically for use in the Industrial Scientific and Medical bands and then adapted it for use in the broadband PCS band.

In its May 4, 1992, Preference Request, Omnipoint stated that, "the most significant difference characterizing our request from that of others is that over the past five years we have

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[1]Amendment of the Commission's Rules to Establish New Personal Communications Services, Memorandum Opinion and Order, 9 FCC Rcd 7805, 7806 (1994) ("Reconsideration Order").

[2]Id. (emphasis added).

[3]Freeman Engineering Associates, Inc. v. FCC, 103 F.3d 169, 180 (D.C. Cir. 1997).

actually designed, prototyped, field tested and now productized for delivery to experimental license holders revolutionary spread spectrum wireless pocket phones and base stations." [4] Omnipoint continued, "These pocket phones can now operate in ... the emerging technologies band (1850-2200 MHz) ... ."[5]

On the basis of these statements, the Commission made a finding in its Tentative Decision that, "In the past five years Omnipoint has designed, prototyped, field tested and produced innovative handheld equipment that operates in the 1850-2200 MHz band."[6] QUALCOMM was unable to find any support for that finding in the record.

In its preference request Omnipoint stated that it received its license to conduct experiments in 1.85-2.2 GHz band on March 12, 1992 and that, "Preliminary results indicate that the phones perform as well at 1850 as at 900 MHz."[7] Thus it is clear that Omnipoint had not been producing equipment for use in the broadband PCS spectrum for five years when the Commission made its finding. The record shows that Omnipoint had been producing equipment in the Industrial Scientific and Medical (ISM) bands and then, shortly before the Commission's adoption of the Tentative Decision, began producing prototypes of its equipment that worked in the broadband PCS spectrum.

Omnipoint also stated that, "Our handheld spread spectrum phones have been field trialed since 1990 in conjunction with many different potential infrastructure providers including Bell Atlantic, PacTel, Ameritech, Cox Communications and many others."[8] The record indicates that little, if any, of this equipment operated in the broadband PCS band.

For example, in June of 1992, American Portable Telecommunications(APT) made the following statement to the Commission about the equipment that Omnipoint was supplying to some experimental license holders:

> It became evident that if APT was going to initiate its trial activities it would be necessary to use radio equipment in the 902-928 MHz frequency band initially and then change out the radio equipment to the 1850-1990 equipment once it became available.

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[4]Omnipoint Communications, Inc., Request for a Pioneer's Preference, Gen. Docket 90-314, 1 (May 4 1992) (emphasis in the original).
[5]Id., 2 (emphasis added).
[6]Amendment of the Commission's Rules to Establish New Personal Communications Services, Tentative Decision and Memorandum Opinion and Order, 7 FCC Rcd 7794, 7803, ¶ 20 (1992) ("Tentative Decision") (emphasis added).
[7]Omnipoint Request, 6.
[8]Id., 2.

Accordingly, APT has purchased and installed Omnipoint's 902-928 MHz radio equipment.[9]

With regard to Bell Atlantic, Omnipoint stated in its Request that, " Bell Atlantic has contracted with Omnipoint for the purchase of several thousand units for market trials using the unlicensed spectrum bands later this year."[10] According to a press report that was included with Omnipoint's preference request, this work was a continuation of ISM band work started in 1990.

Omnipoint also noted in its Request that, "In conjunction with Cox, Omnipoint's phones were used to make the first PCS call over a cable TV network, placed to Chairman Sikes in February of this year."[11] In explaining its reasons for granting a preference to Cox, the Commission found that, "On February 12, Cox employed cable plant to carry a PCS phone call over an operating cable system."[12] Actually, the Omnipoint equipment that Cox used to used to make this call operated in the 902-928 MHz band.[13] Cox did not receive 1800 MHz equipment from Omnipoint until October of 1992 and the preliminary results obtained with this equipment were not reported to the Commission until November 19, 1992, more than a month after the Commission adopted the Tentative Decision.[14]

It is significant that in making the tentative award to Omnipoint, the Commission never considered or even mentioned the fact that virtually all of Omnipoint's equipment had been "developed specifically" for use in the ISM bands.

When GTE pointed this out,[15] the Commission neither disputed it nor did it find it disqualifying. Rather it concluded, "that Omnipoint has demonstrated that its PCS equipment uses innovative technology that relates specifically to provision of PCS at 2 GHz."[16] The Commission did not explain how Omnipoint's equipment "related specifically" to the provision of broadband PCS service nor did it explain the significance of such a relationship. However, in the same paragraph it noted that, "Omnipoint, as well as other experimental licensees that have used Omnipoint's

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[9]American Portable Telecommunications, Inc. Interim Report, Experimental License Call Sign KK2XAV, File No. 2126-EX-PL-91 et al, 6 (June 15 1992).
[10]Omnipoint Request, 3 (emphasis added).
[11]Id.
[12]Amendment of the Commission's Rules to Establish New Personal Communications Services, Third Report and Order, 9 FCC Rcd 1337, 1343, ¶ 39 (1994) ("Third Report and Order") (emphasis added).
[13]Cox Enterprises, Inc., Seventh Progress to the FCC for Experimental Licenses: KF2XFR (File No. 1641-EX-PL-90) and KF2FYFQ (File No. 1643-EX-PL-90), 13 (November 19, 1992).
[14]Id., 7.
[15]Comments of GTE Service Corporation, GEN Docket 90-314, 16-17 (January 29, 1993).
[16]Third Report and Order, 1346, ¶60 (emphasis added).

equipment, have demonstrated that Omnipoint's equipment may be used in either a licensed or unlicensed service." [17]

It is not clear if the Commission was finding that the same equipment could be used in different bands or that similar equipment could be used in different bands. In any case, the Commission certainly was acknowledging that Omnipoint originally developed this equipment for use in the ISM bands and then adapted it for use in the broadband PCS spectrum. The record shows that Omnipoint not only developed this equipment for use in the ISM bands, it also delivered systems for use in the ISM bands.

The Commission also stated that, "Omnipoint has demonstrated that it performed significant new work related to 2 GHz PCS after adoption of the pioneer preference rules."[18] The Commission did not provide a citation to support this statement nor did it identify the nature of the significant new work. QUALCOMM has been unable to locate any experimental evidence in the record that Omnipoint did any "significant new work" after the Commission adopted the pioneer's preference rules.

III. Cox did much of its development work at non broadband PCS frequencies and then adapted the technology to the broadband PCS band.

In commenting on the Tentative Decision, GTE argued that because Cox had used Omnipoint's 900 MHz equipment to validate its technology, Cox should not be eligible for a 2 GHz preference.[19] After acknowledging GTE's argument the Commission did not discuss it further. Cox itself mentioned that, "The particular radio equipment used in Cox's February 12 demonstration was not critical to providing compatibility of PCS and cable television plant."[20] Furthermore, Cox acknowledged that it had done its experiments using both 900 MHz and 2 GHz equipment. Cox also stated that its equipment was, "designed to accept either an analog or digital input ..." and thus was, "compatible with almost any radio transmission equipment."[21] Given the nature of its equipment, Cox's pioneering technology can be used to provide several services including broadband PCS, 800 MHz cellular and service in the unlicensed bands.

IV. The Commission not only did not disqualify the winning applicants for adapting "existing" technologies, it actually used their adaptations to justify their grants.

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[17] Id. The Commission did not provide a citation to support this statement.

[18] Id.

[19] Id., 1347, ¶47.

[20] Cox's Seventh Report (supra, note 14), 13, n.1.

[21] Id., 14.

There is overwhelming evidence in the record that all the experimentally verified features of Omnipoint's equipment that Commission identified as pioneering were part of its ISM equipment. It is also clear from the record that Cox's pioneering technology was not "developed specifically for a particular service," but was applicable to several services including PCS at 2 GHz.

In sum, in acting on the Omnipoint and Cox requests, not only did the Commission not find adaptation of non broadband PCS technology disqualifying, it used such work to justify preference grants to both Omnipoint and Cox. In addition, it never tested either request using the "developed specifically for a particular service" test it ultimately applied to QUALCOMM's request.

V. QUALCOMM did not develop its technology specifically for use in the 800 MHz cellular band.

In the Tentative Decision, the Commission began its brief discussion of QUALCOMM's request by noting that, "On the record, it appears that the Qualcomm proposed system is identical to that which it already has developed for use in the 800 MHz cellular bands."[22] This statement is not correct. When it filed its preference request, QUALCOMM was trying to interest existing cellular carriers in using its CDMA technology when and if they decided to convert their existing analog systems to digital operation. It was also developing this technology for use for the provision of broadband PCS and wireless local loop applications. As it noted in comments it filed in response to the Tentative Decision, QUALCOMM submitted a document entitled, "CDMA-2000-A Proposed PCS Standard" to the industry's first PCS standards body in November of 1992.[23]

QUALCOMM also noted in its Comments that the Commission had not penalized the tentative selectees for building on and improving existing technologies and that much of Omnipoint's work was done in non broadband PCS bands.[24]

Although the Commission acknowledged the disparate treatment issue with respect to QUALCOMM's request in the Third Report and Order[25], it did not address the merits of the issue. Instead it stated, "We continue to believe that most of the technical developments and patents associated with Qualcomm's proposal were developed for implementation of its cellular system, and we disagree that adapting to this 800 MHz digital work to the 2 GHz band is innovative."[26] The Commission did not indicate with whom it

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[22]Tentative Decision, 7807, ¶32.

[23]Comments of QUALCOMM Incorporated, GEN Docket No. 90-314, 7 (January 29, 1993).

[24]Id., 12.

[25]Third Report and Order, 1369, ¶262.

[26]Id., 1370, ¶266.

was disagreeing nor did it offer any evidence to support its continuing beliefs.

In response, QUALCOMM told the Commission that it, "did not develop CDMA, 'for implementation of its 800 MHz digital cellular system' ... ."[27] rather it had, "realized that if certain fundamental problems could be solved, CDMA could become the ideal technology to provide a variety of terrestrial wireless communications services including 1800 MHz PCS, 800 MHz cellular and wireless local loop service."[28] QUALCOMM also explained to the Commission that there was nothing in its CDMA patents that relates to the radio frequency at which the technology can operate. That is, all QUALCOMM's CDMA patents are applicable to its 1800 MHz PCS system. QUALCOMM went on to point out that the first and only CDMA system that it had constructed and sold (to American Personal Communications) at that time was an 1800 MHz PCS system.[29] That is, although it had tested its pioneering technology at 1800 MHz, 1700 MHz and 800 MHz, QUALCOMM had never delivered a CDMA digital cellular system at 800 MHz. It had delivered one at 1800 MHz and the Commission knew it. Even at this late date the Commission had never acknowledged this decisionally significant fact.

VI. One of QUALCOMM's innovative CDMA developments even passes the "developed specifically" test.

QUALCOMM filed a Petition for Reconsideration of the denial of its request in which it again raised the disparate treatment issue. Once again the Commission failed to address the issue. Instead it created a new test. That is, as noted above, in order to qualify for a preference, "an entity must show that its innovative technology was developed specifically for the advancement of a particular service, in conjunction with a particular rulemaking before the Commission addressing this service."[30] The Commission never fairly applied this test to QUALCOMM's application. If it had, it would have concluded that QUALCOMM's unique distributed antenna system passed even this stringent test.

As the Commission noted in 1996, four years after QUALCOMM filed its preference request, 800 MHz, "cellular radio still uses predominately analog technology and serves mostly vehicular subscribers, whereas broadband PCS is expected to be entirely digital and serve mostly non-vehicular subscribers."[31] That is, in the Commission's view, broadband PCS will provide service almost

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[27]Petition for Reconsideration of QUALCOMM Incorporated, GEN Docket No. 90-314, 6 (March 30, 1994) ("Reconsideration Petition").

[28]Id. (emphasis added).

[29]Id.

[30]Reconsideration Order, 7810, ¶ 34.

[31]Review of the Pioneer's Preference Rules, Memorandum Opinion and Order, 11 FCC Rcd 2486, 2469 (1966).

exclusively to hand held units for use mainly in pedestrian and in-building environments.

QUALCOMM developed a distributed antenna system to provide in building service to PCS users. QUALCOMM reported test results from this distributed antenna system in one of the experimental reports that it submitted to the Commission.[32] Time Warner also submitted information on testing of QUALCOMM's distributed antenna system.[33]

In the Third Report and Order the Commission acknowledged that QUALCOMM had developed a distributed antenna system for its PCS system. In particular, the Commission noted, "the distributed antenna system is designed to increase multipath and signal diversity and permits extensive in-building coverage without cell-to-cell hand-off thus providing a low cost and high quality service."[34] However, the Commission concluded that, "While Qualcomm has done work at 2 GHz on ... remote antennas, after extensive review we have been unable to identify a specific significant aspect of this work that is innovative and for which Qualcomm is responsible."[35]

In its brief to the Court, QUALCOMM observed that, "The Commission apparently confused QUALCOMM's unique in-building distributed antenna system with remote antenna systems that are designed to use existing outdoor cable plant to serve large outside areas."[36] In response, the Commission stated that it, "was not 'confused' about one critical fact: Most of QUALCOMM's apparent technical innovations- including its distributed antenna system - were originally developed for implementation in 800 MHz digital cellular service."[37]

The Commission did not tell the Court that the distributed antenna was not innovative. It stated, for the first time, that QUALCOMM's "distributed antenna system ... (was) originally developed for use in the 800 MHz digital cellular service."[38] This is in direct contradiction to its finding in the Reconsideration Order, "that QUALCOMM had . . . proposed only three features specifically for broadband PCS: ... (one of which was)remote antennas."[39] The Commission continued, "We concluded that each of these concepts had been developed by others."[40]

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[32] QUALCOMM Incorporated, PCS Experimental License Progress Report, Call sign KK2XBJ, File No. 2345-EX-PL91, 5-1 (July 19, 1993).

[33]Time Warner's Thirteenth Quarterly Report of PCS Experimental Work, Call Sign KO2XIG et al, 8, Figure 1 (June 18, 1994).

[34]Third Report and Order, 1369, ¶ 263 (emphasis added).

[35]Third Report and Order, 1369, ¶266.

[36]Appellant's Brief, 30.

[37]Appellee's Brief, 48 (emphasis added).

[38]Appellee's Brief, 48.

[39]Reconsideration Order, ¶32 (emphasis added).

[40]Id.

The distributed antenna system was not "developed by others". Indeed, QUALCOMM received a United States patent[41] for its distributed antenna system. This is conclusive evidence that the Commission was mistaken. The United States Patent Office would not have granted QUALCOMM a patent for its distributed antenna system if it had been, "developed by others". QUALCOMM pointed out the Commission's mistake in its brief.[42]

The Commission did not acknowledge its mistake in its brief. Instead it stated that QUALCOMM had asserted that, "the Commission could not properly refuse to grant it a preference for its distributed antenna system because that system had been granted awarded a patent."[43] QUALCOMM made no such assertion. QUALCOMM had cited its patent only to show that the Commission's finding that the QUALCOMM's distributed antenna system had been "developed by others" was wrong.

In sum, QUALCOMM believes that the record clearly shows that its innovative distributed antenna system was developed specifically for the broadband PCS service. The record also offers no basis for the Commission's erroneous conclusion that it had been "developed by others."

VII. Conclusion

The Commission granted preferences to pioneers whose work was adapted from existing technology but denied a preference to QUALCOMM because it was an adaptation. The Court recognized this unfairness and vacated the Commission's denial of QUALCOMM's request. On remand, the Commission may not deny QUALCOMM again using an "adaptation of technology" test.

Furthermore, QUALCOMM's distributed antenna system was "developed specifically" for broadband PCS. It is an innovative achievement developed and patented by QUALCOMM. On the basis of the distributed antenna system alone, QUALCOMM is deserving of a pioneer's preference.

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[41]United States Patent Number 5,280,472, *CDMA Microcelluar Telephone System and Distributed Antenna System Therefore* . The inventors were Klein S. Gilhousen, QUALCOMM's Senior Vice President Technology and Franklin P. Antonio, QUALCOMM Senior Vice President Engineering. QUALCOMM was the assignee of the patent.

[42]Appellant's Brief, 31.

[43]Appellee's Brief, 48.